AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. - 8. (canceled).

9. (previously presented): A rolling bearing, comprising:

a pair of bearing rings; and

a plurality of rolling elements incorporated between the pair of bearing rings;

wherein:

each of said bearing rings has a raceway groove including a raceway surface having a larger radius than a radius of said rolling elements;

at least one of the raceway grooves includes two raceway surfaces;

said rolling elements have an outside diameter of a rolling contact face with a curvature in the axial direction, and are arranged crosswise so that the central axes of rotation of the rolling elements are skewed alternately in the circumferential direction of said bearing rings;

an outer peripheral face of each of said rolling elements is in contact with the raceway surface of one of the bearing rings and the raceway surface of the other of the bearing rings, which are opposed to each other, at each one point, or two points in total;

each of the pair of bearing rings is monolithically formed;

a groove of desired depth is provided in a part of the raceway groove for one of said bearing rings;

each of said rolling elements is an upper and lower sides cut ball having one set of opposing faces, in which the central axis of rotation of each rolling element is orthogonal to each opposing face;

the rolling elements are insertable in a state that the bearing rings are assembled; and

the rolling elements are rotatable using the groove provided in the part of the raceway groove, after the rolling elements are inserted into a space defined by the bearing rings and the rolling elements are assembled so that a rolling surface thereof contacts a raceway surface of the bearing ring.

10. (previously presented): The rolling bearing according to claim 9, further comprising: a retainer for retaining said plurality of rolling elements between said pair of bearing rings;

wherein said retainer has a plurality of pockets for retaining said rolling elements, each having an axial pocket face, with a face opposed to said axial pocket face being opened; and

said axial pocket faces are inclined alternately toward mutually opposite sides in the axial direction, corresponding to a direction of inclination of said rolling elements incorporated crosswise to each other in the circumferential direction of said bearing rings.

11. (previously presented): The rolling bearing according to claim 9, further comprising; a retainer for retaining said plurality of rolling elements between said pair of bearing rings;

wherein said retainer has a plurality of pockets for retaining said rolling elements, each having an axial pocket face; and

said axial pocket faces are inclined alternately toward mutually opposite sides in the axial direction, corresponding to a direction of inclination of said rolling elements incorporated crosswise to each other in the circumferential direction of said bearing rings.

12. (previously presented): The rolling bearing according to clam 9, further comprising: a retainer having a plurality of pockets for retaining said plurality of rolling elements between said pair of bearing rings;

wherein each of the pockets having an axial pocket face;

and

each of said rolling elements has at least: one planar portion to be in contact with the axial pocket face.

13. (previously presented): A direct drive motor to be directly connected to a load, comprising:

a rotor;

a stator disposed in at least one of an inside and an outside of the rotor; and

a bearing provided to support a rotation and load; wherein the bearing comprises:

a pair of bearing rings, and

a plurality of rolling elements incorporated between the pair of bearing rings, wherein:

each of said bearing rings has a raceway groove including a raceway surface having a larger radius than a radius of said rolling elements;

at least one of the raceway grooves includes two raceway surfaces;

said rolling elements have an outside diameter of a rolling contact face with a curvature in the axial direction, and are arranged crosswise so that the central axes of rotation of the rolling elements are skewed alternately in the circumferential direction of said bearing rings;

an outer peripheral face of each of said rolling elements is in contact with the raceway surface of one of the bearing rings and the raceway surface of the other of the bearing rings, which are opposed to each other, at each one point, or two points in total;

each of the pair of bearing rings is monolithically formed;

a groove of desired depth is provided in a part of the raceway groove for one of said bearing rings;

each of said rolling elements is an upper and lower sides cut ball having one set of opposing faces, in which the central axis of rotation of each rolling element is orthogonal to each opposing face;

the rolling elements are insertable in a state that the bearing rings are assembled; and

the rolling elements are rotatable using the groove provided in the part of the raceway groove, after the rolling elements are inserted into a space defined by the bearing rings and the rolling elements are assembled so that a rolling surface thereof contacts a raceway surface of the bearing ring.

14-16. (canceled).

17. (previously presented): The direct drive motor according to claim 13, further comprising:

a retainer for retaining said plurality of rolling elements between said pair of bearing rings;

wherein said retainer has a plurality of pockets for retaining said rolling elements, each having an axial pocket face, with a face opposed to said axial pocket face being opened; and

said axial pocket faces are inclined alternately toward mutually opposite sides in the axial direction, corresponding to a direction of inclination of said rolling elements incorporated crosswise to each other in the circumferential direction of said bearing rings.

18. (previously presented): The direct drive motor according to claim 13, further comprising:

a retainer for retaining said plurality of rolling elements between said pair of bearing rings;

wherein said retainer has a plurality of pockets for retaining said rolling elements, each having an axial pocket face; and

said axial pocket faces are inclined alternately toward mutually opposite sides in the axial direction, corresponding to a direction of inclination of said rolling elements incorporated crosswise to each other in the circumferential direction of said bearing rings.

19. (previously presented): The direct drive motor according to clam 13, further comprising:

a retainer having a plurality of pockets for retaining said plurality of rolling elements between said pair of bearing rings;

wherein each of the pockets having an axial pocket face;

and

each of said rolling elements has at least: one planar portion to be in contact with the axial pocket face.

20. (previously presented): The rolling bearing according to claim 9, further comprising a retainer, wherein:

the rolling elements are insertable in a state that the bearing rings and the retainer are assembled; and

the rolling elements are rotatable using the groove provided in the part of the raceway groove, after the rolling elements are inserted into a space defined by the bearing rings and the rolling elements are assembled so that a rolling surface thereof contacts a raceway surface of the bearing ring.

21. (previously presented): The direct drive motor according to claim 13, further comprising a retainer, wherein:

the rolling elements are insertable in a state that the bearing rings and the retainer are assembled; and

the rolling elements are rotatable using the groove provided in the part of the raceway groove, after the rolling elements are inserted into a space defined by the bearing rings and the rolling elements are assembled so that a rolling surface thereof contacts a raceway surface of the bearing ring.

22. (previously presented): The rolling bearing according to claim 9, wherein the rolling elements are rotatable after being inserted into the space defined by the bearing rings, and pre-load is applied to the rolling elements in a state that the rolling elements are positioned so that the rolling surface thereof contacts with the raceway surface of the bearing ring.

23. (previously presented): The rolling bearing according to claim 20, wherein the rolling elements are rotatable after being inserted into the space defined by the bearing rings, and pre-load is applied to the rolling elements in a state that the rolling elements are positioned so that the rolling surface thereof contacts with the raceway surface of the bearing ring.

24. (previously presented): The direct drive motor according to claim 13, wherein the rolling elements are rotatable after being inserted into the space defined by the bearing rings, and pre-load is applied to the rolling elements in a state that the rolling elements are positioned so that the rolling surface thereof contacts with the raceway surface of the bearing ring.

25. (previously presented): The direct drive motor according to claim 21, wherein the rolling elements are rotatable after being inserted into the space defined by the bearing rings, and pre-load is applied to the rolling elements in a state that the rolling elements are positioned so that the rolling surface thereof contacts with the raceway surface of the bearing ring.

26. (new): The rolling bearing as set forth in Claim 9, wherein the rolling bearing is assembled in a state that the rolling element is inserted and rotated by using the groove provided in the part of the raceway groove and a preload is applied.

27. (new): The rolling bearing as set forth in Claim 13, wherein the rolling bearing is assembled in a state that the rolling element is inserted and rotated by using the groove provided in the part of the raceway groove and a preload is applied.